AMENDMENTS TO THE DRAWINGS:

Applicant submits concurrently herewith four (4) sheets of annotated drawings illustrating Figs. 1-4 showing changes in red ink, accompanied by four (4) sheets of replacement drawings incorporating the amendments.

Attachments: Replacement Sheets (4)
Annotated Sheet Showing Changes (4)

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

With respect to applicant's certified priority document, it is believed that such was properly received during the International Phase of this application at WIPO. The Examiner is respectfully requested to confirm this in writing in the next office action.

In response to the Examiner's request for a copy of documents cited at various points in the specification, such requested copies will be filed shortly, together with a suitable Form PTO/SB/08a and the IDS fee required for this stage of prosecution.

In response to the Examiner's request, the application has also been reviewed and amended so as to insert appropriate headings and otherwise place the application in more traditional U.S. format.

The rejection of claims 1, 4-10 and 13-17 under 35 U.S.C. §102 as allegedly anticipated by Wan '024 is respectfully traversed.

All that is required by the cited passage in Wan (paragraphs [0053]-[0055]) is that each sensor device (mobile telephone) perform measurements (signal strength of nearby base stations) at a rate that depends on the rate of change of the property being measured.

The applicant's claimed invention is concerned with a self-organizing system in which the sensors relay data between each other without the use of fixed base stations. Because of this, and unlike the cellular system of Wan, each mobile unit has available to it the data measured by its neighbors.

No reference can be found in Wan to the sensor devices (mobile telephones) "determining the values of the property being measured by similar devices" as required by applicant's claim 1, or of determining the values of the property being measured by each device (applicant's claim 10), and adjusting the periodicity of measurement accordingly. These elements of the applicant's claims require that the measurements made by each sensor are used to influence the behavior of the other sensors, which requires that the sensors communicate their measurements to each other, and act on the results received.

The reference in Wan at paragraph [0086] to "adjusting the scanning rate of neighbouring cells" relates to the behavior of an individual mobile unit adjusting the rate at which it scans for the beacons transmitted by the local base stations. It is not adjusting the behavior of those beacons – and these can hardly be considered "similar" as they perform a quite different function. The only devices similar to the mobile stations in the system cited are other mobile stations in the vicinity. Not only is there no mention of any cooperation between the mobile devices in the measurement process, but the sensors (mobile units) of the prior art system could not cooperate in this way

unless they exchanged measurement data with each other in the first place, and there is no mention of them doing so, nor any conceivable reason for them to do so.

Wan is concerned only with measuring signal strength between a particular mobile unit and the local base stations – this data is of use only to that particular mobile unit, and is irrelevant to the operation of other mobile units in the vicinity, as any handover decisions need to be made based on their own measurements of signal strength.

A similarity to Wan is that the measurement rate is reduced (measurements are taken less frequently) when they are found to vary little between successive measurements made by a given sensor. In Wan, the cause of the property being measured – transmissions from a beacon – are constant, so this actually measures the rate at which the terminal is moving relative to the base station. However, unlike the present invention, Wan does not suggest comparing the measurements made by different sensors, in which similarity between data suggests that several sensors are distributed through a region throughout which the measured property varies little. This may be because of small variation in the measured property over a large area, or of a relatively small area in which several sensors happen to have clustered. Note that this is a measurement of variation over space, not time, using similar sensors, each stationary or relatively slow moving, making roughly contemporaneous measurements. Wan only measures variations over time, using a single sensor.

Given such fundamental deficiencies of Wan with respect to independent claims 1 and 10, it is not believed necessary at this time to detail additional deficiencies of Wan with respect to other aspects of the rejected claims. Suffice it to note that, as a matter of law, it is impossible for a reference to anticipate a claim unless it teaches each and every feature of that claim.

The rejection of claims 2-3, 11-12 and 18 under 35 U.S.C. §103 as allegedly being made "obvious" based on the same single Wan reference is also respectfully traversed – for reasons already noted above with respect to parent claims 1 and 10. Once again, given such fundamental deficiencies of Wan , it is not necessary at this time to detail additional deficiencies of this reference with respect to other aspects of the rejected claims. Suffice it to note that, as a matter of law, it is impossible to support even a *prima facie* case of obviousness with respect to any claim unless the prior art at least teaches or suggests every feature of the rejected claims.

It is nevertheless noted that the Examiner's stated inferences to supply admitted deficiencies of Wan are incorrect. Wan is simply a cellular telephone system with no suggestion to one of only ordinary skill in the art at the relevant time that one should increase the frequency with which sensor measurements are being taken when the property being measured is changing. See the above discussion. The Examiner's stated "inference" of obviousness is based on undue hindsight.

Similarly, although the applicant does not claim to be the first to ever calculate the standard deviation or to perform other statistical analysis, in the context claimed, the applicant has discovered an algorithm for greatly improving the performance of an ad hoc network of distributed sensor devices using the standard deviation of a predetermined number of preceding sensor readings. There is no suggestion of this particular usage of a standard deviation in the cited art – and the applicant has already shown the criticality of this in the context of the presently claimed invention of the exemplary embodiment as described in connection with Fig. 3 and associated text of the present application. The Examiner's statement that such would have been "obvious to an artisan to enable a user to make usefully meaning [sic] out of the large amount of data to determine the values of the property being measured" is a *non sequitur* – and is a merely conclusory statement at best. If the applicant's exemplary embodiment is properly understood, it does not use the standard deviation of a predetermined number of preceding readings merely to enable a user to make useful meaning out of a large amount of data or to determine the values of the property being measured. Instead, it is used to help determine the frequency of measurement – and thus, among other things, avoid collecting an unduly large amount of data in the first instance!

The Examiner's attempt to find some motivation for using an admittedly well known statistical measurement (i.e., a standard deviation) in the context of the applicant's claimed invention actually demonstrates the non-obviousness and

patentability of the applicant's claimed invention as to this aspect of the claimed invention.

Similarly, the Examiner's conclusory statements concerning claim 18 in an attempt to supply the admitted deficiencies of Wan are also lacking. As noted above, there is no apparent interchange of information between the mobile cellular units in Wan so even talking about a "staggering" of times at which measurements are taken does not make any logical sense. Once again, this is a demonstration of the non-obviousness of the claimed invention.

Accordingly, this entire application is now believed to be in allowable condition, and a formal notice to that effect is earnestly solicited.

Respectfully submitted,

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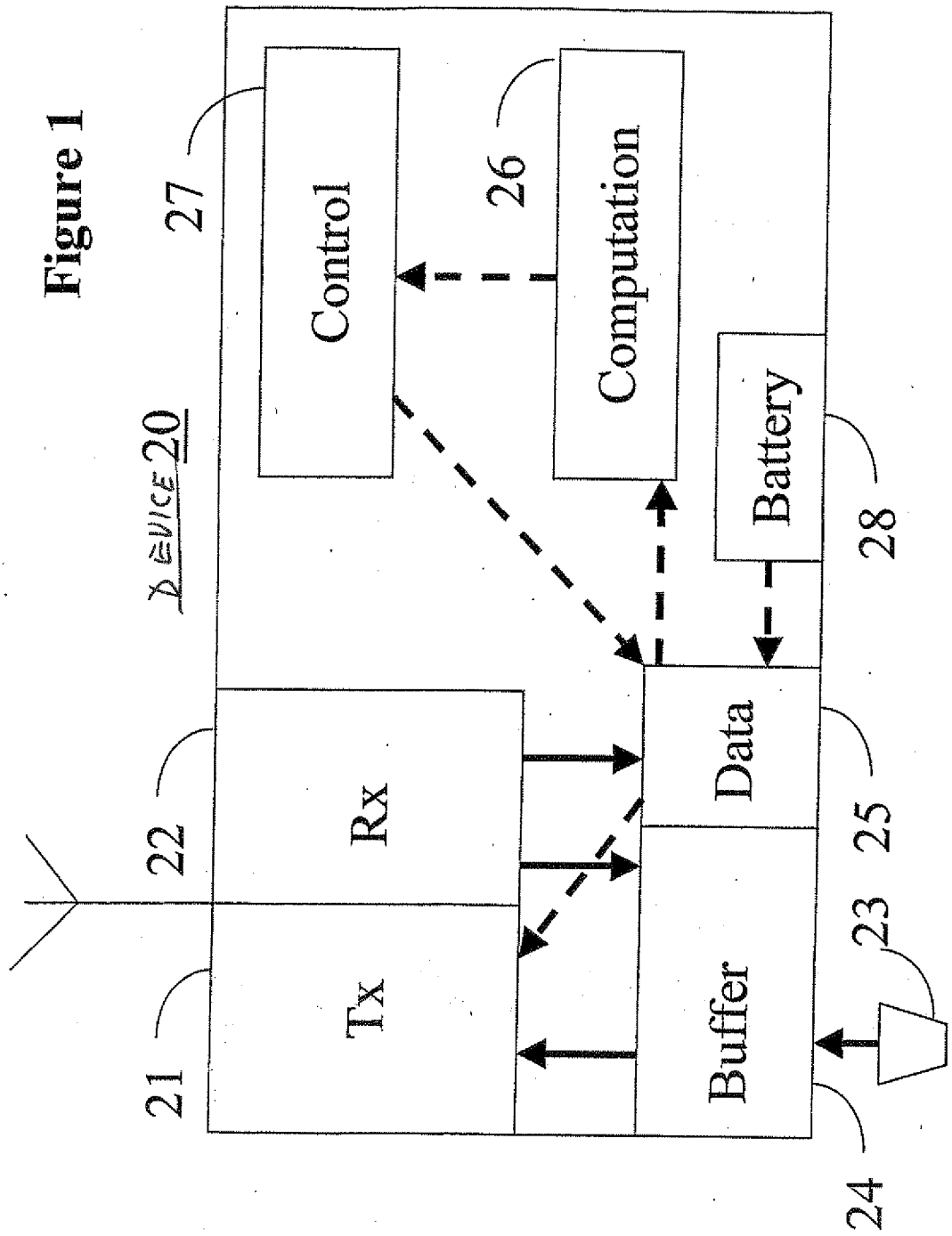
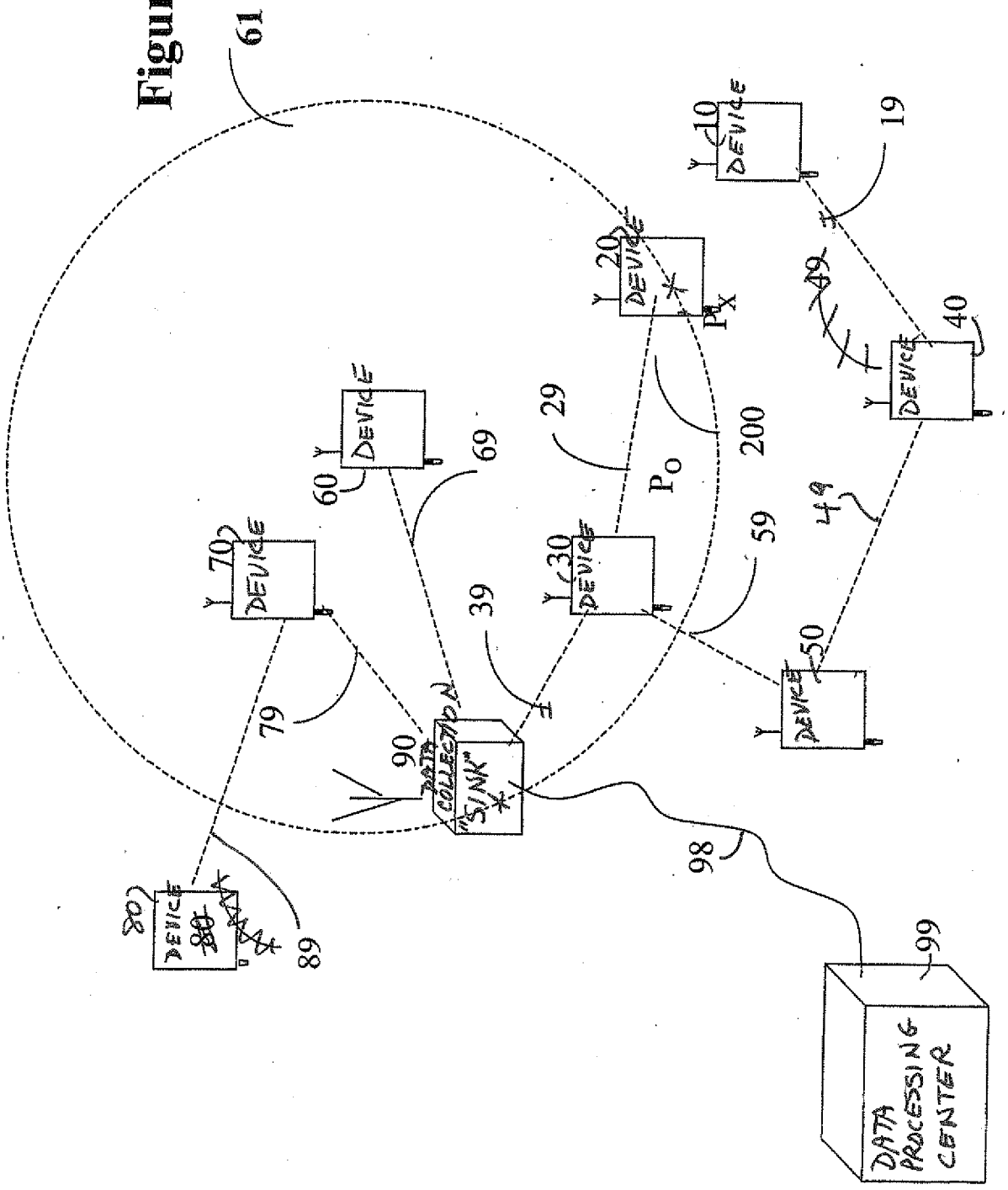
Figure 1



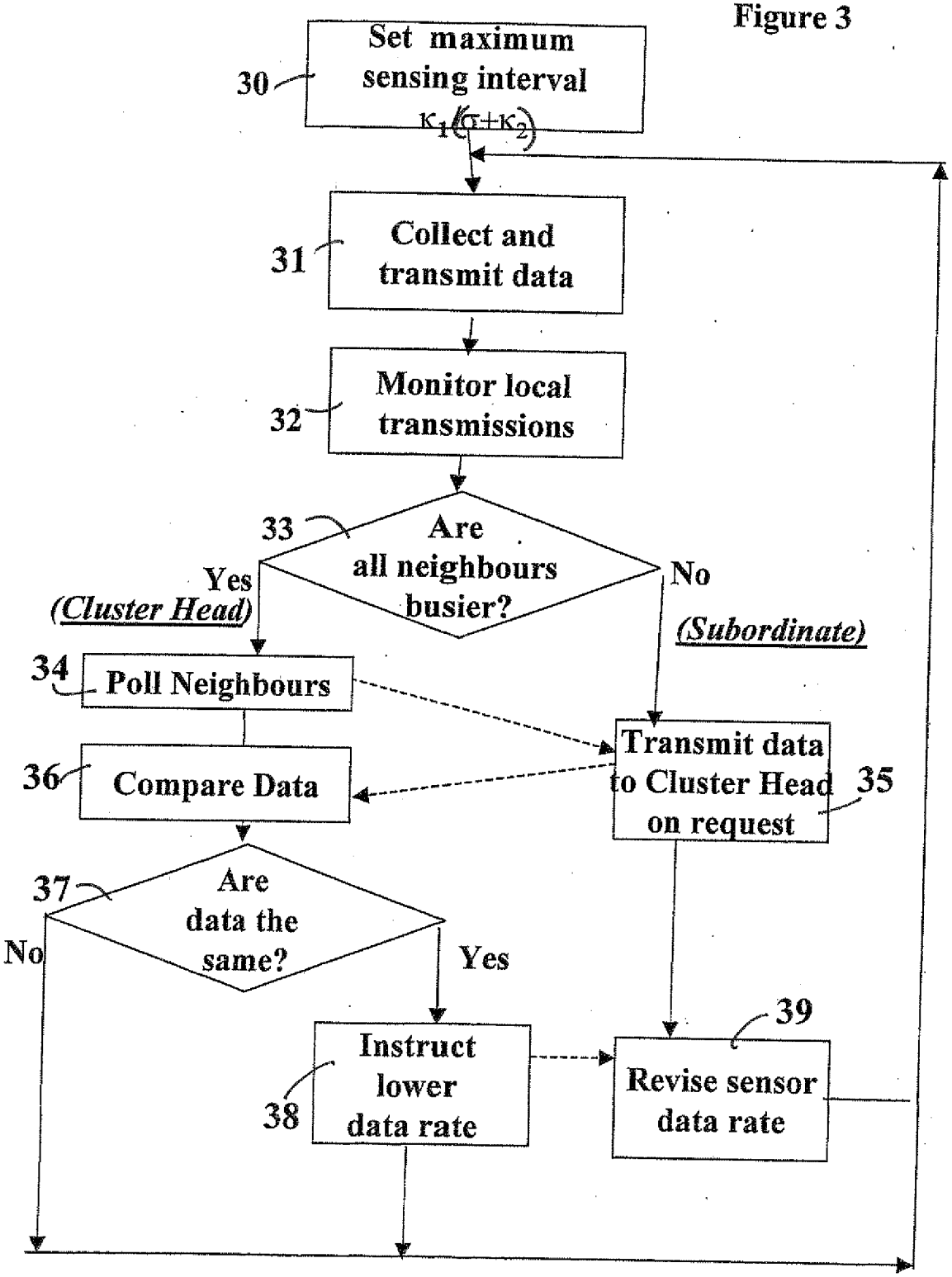
ANNOTATED MARKED UP DRAWINGS
FOR SN 10/585,890

Figure 2



ANNOTATED MARKED UP DRAWINGS FOR SN 10/585,890

Figure 3



ANNOTATED MARKED UP DRAWINGS
FOR SN 10/585,890

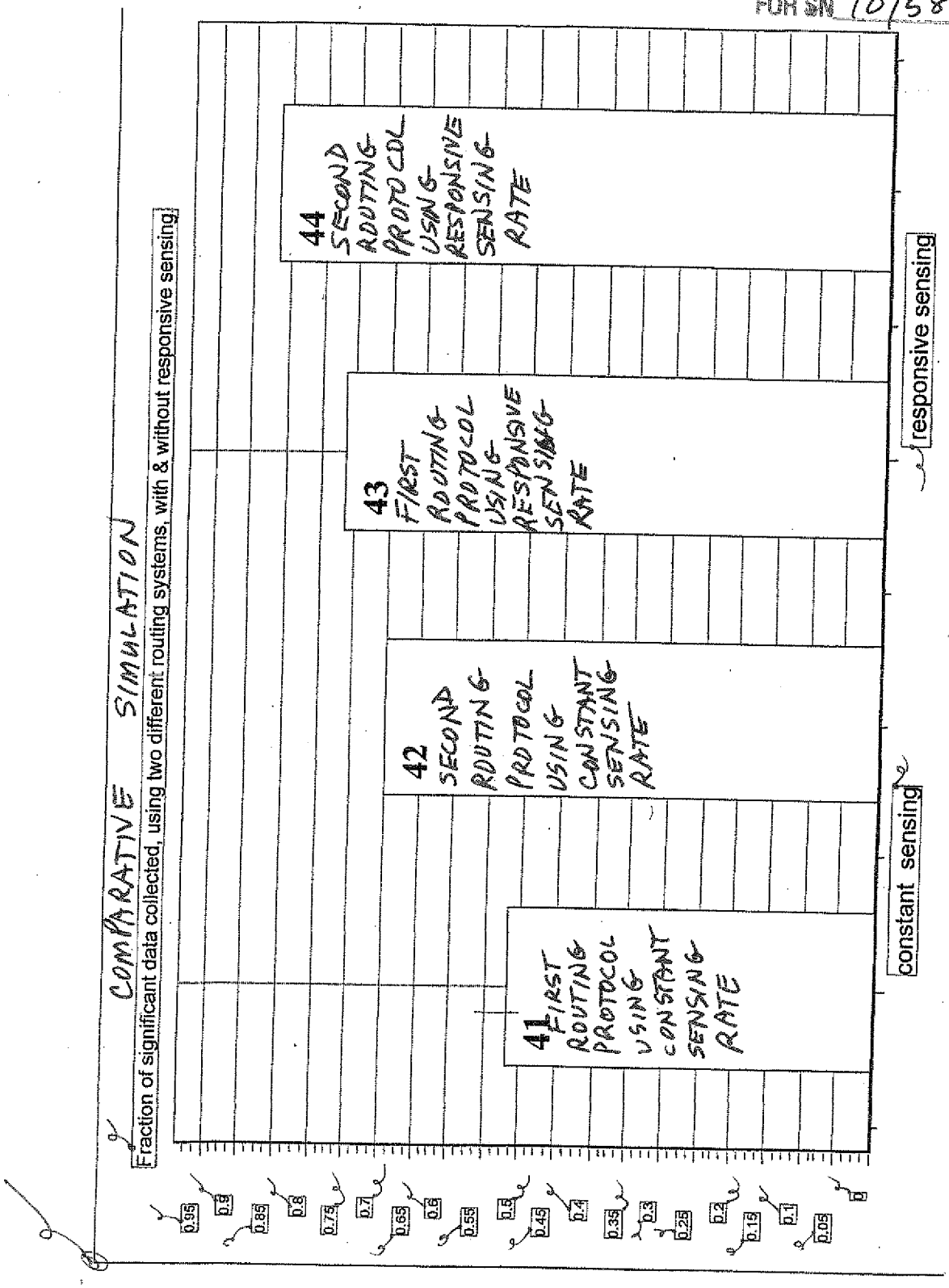


Figure 4